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5 (a) a multi-format digital data driver arranged  
to operate in a plurality of different display modes, to  
receive digital input data in a plurality of different  
formats, and to drive data lines of the liquid crystal  
display so as to cause an image to be displayed by the  
10 display corresponding to said input data; and

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3. A driving arrangement as claimed in claim 1, wherein the data driver is arranged to consume less power in low resolution display modes compared to high resolution display modes.

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4. A driving arrangement as claimed in claim 1, wherein said display modes include at least one 1-bit overlay mode.

5 5. A driving arrangement as claimed in claim 1, wherein the data analysis means analyses each frame of input data in turn, and updates the mode of the data driver at the end of each frame.

10 6. A driving arrangement as claimed in claim 1, wherein the data analysis means comprises frame comparison means for comparing each frame of input data with the next, and for determining if the input data for a number of consecutive frames is the same.

15 7. A driving arrangement as claimed in claim 6, wherein the data driver is arranged to operate at more than one refresh rate, and wherein the data analysis means is arranged to control the data driver to operate at a lower refresh rate if the comparison means determines that the  
20 input data has remained unchanged for a number of frames.

8. A driving arrangement as claimed in claim 1, wherein the data analysis means comprises a plurality of inputs

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13. A driving arrangement as claimed in claim 1, wherein

14. An active matrix liquid crystal display comprising a driving arrangement as claimed in claim 1.

16. An active matrix liquid crystal display as claimed in claim 15, wherein said thin film transistors are poly-silicon

analysing the image data representing each image,  
comparing the image data for the current image with  
that for the previous image,

from the comparison of the previous step, determining whether the two images are the same, or substantially the same.

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if the images are the same, or substantially the same, then not updating the liquid crystal display with at least the subsequent image, in order to reduce the power consumption of the liquid crystal display.

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18. A method as claimed in claim 17, wherein if said two images are determined to be the same, or substantially the same, then the liquid crystal display is prevented from being updated by more than one subsequent image.

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19. A method as claimed in claim 17, wherein the step of analysing the image data for each image involves producing a signature for each image.

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20. A method as claimed in claim 19, wherein said signature is the sum of all data bits representing the image.

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21. A method as claimed in claim 19, wherein said signature is more complex than a simple sum, and takes into account the sequence of data bits representing the image.

22. A method as claimed in claim 21, wherein said signature is produced using a linear feedback shift register.

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5 24. A method as claimed in claim 23, wherein the bit or bits which are ignored are the least significant bit or bits.

26. A method as claimed in claim 25, wherein said liquid crystal display is divided into a plurality of regions, and the steps of the method are carried out separately for each region, so that if the current and previous images for a given region are determined to be the same, or substantially the same, then that region is not updated with at least the subsequent image, or portion of an image, for that region.

27. A method as claimed in claim 17, wherein if it is determined that the liquid crystal display, or a portion thereof, is not to be updated, a first control signal is

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of a first image, and

of the first image, wherein said first region of the first

producing a first sub-signature for a first region of the subsequent image, and

10           comparing said first and second sub-signatures for the first image with said first and second sub-signatures for the subsequent image, to determine whether the subsequent image represents a translation, or substantially a translation, or the first image.

20 32. A method as claimed in claim 30, wherein at least 8 sub-signatures are produced for each of said first and subsequent images, said sub-signatures corresponding to translations in different directions.

Figure 1 illustrates the development of the human embryo from fertilization to the end of the eighth week. The diagrams are arranged vertically and labeled with numbers 1 through 12. Each diagram shows a different stage of growth, with labels indicating the corresponding week of development. The diagrams show the progression from a single cell to a complex, multi-layered structure with distinct head, trunk, and tail regions.



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37. Data analysis means as claimed in claim 36, which comprises a linear feedback shift register.

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40. A liquid crystal display device comprising a liquid crystal display, a data driver, and a data analysis means as claimed in claim 36.